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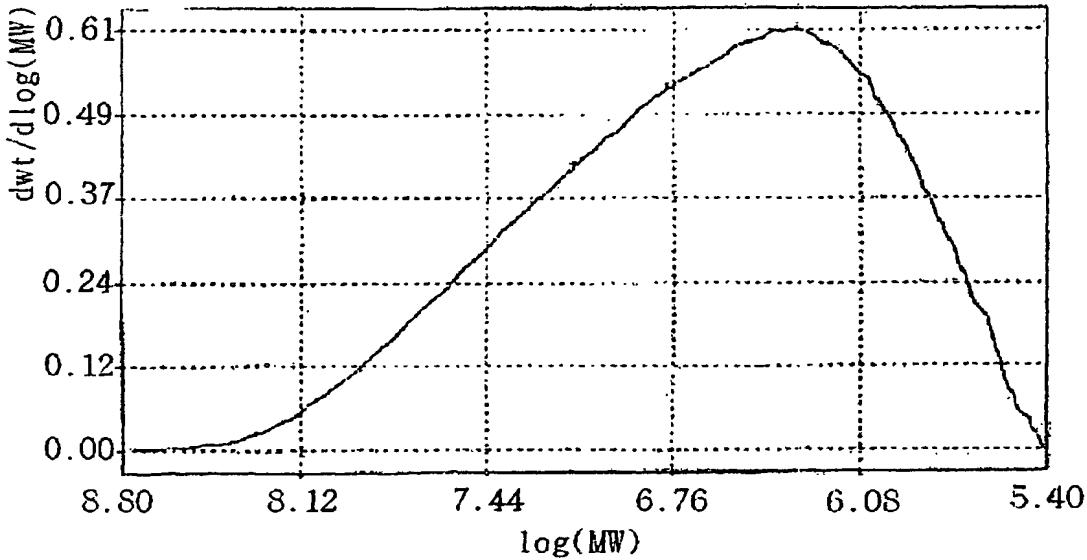
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(54) Title: **POLY-GAMMA-GLUTAMATE HAVING ULTRA HIGH MOLECULAR WEIGHT AND METHOD FOR USING THE SAME**



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(57) **Abstract:** The present invention relates to a poly-gamma-glutamate (PGA) having an ultra-high molecular weight greater than 5,000 kDa. The ultra-high molecular weight PGA according to the present invention has a mean molecular weight greater than 13,000 kDa, and more than 95 % of its molecules have a molecular weight ranging from 3,000 to 15,000 kDa. Also, it can be produced by the culturing of *Bacillus subtilis* var. *chungkookjang*. The ultra-high molecular weight PGA according to the present invention shows very excellent moisture-absorbing, moisture-retaining, sustained release, mineral solubility, and water-absorbing properties, and thus, can be used as a new and high value-added material in various applications.

